

# Optimizing User, Group, and Role Management with Access Control and Workflows

**Team Id:** NM2025TMID19354

## Team Members:

**Team Leader:** HARINI.S

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## Problem Statement:

In a small project management team consisting of a Project Manager (Alice) and a Team Member (Bob), there is a need to efficiently manage project tasks and ensure accountability throughout the project lifecycle. The current system lacks clear role definitions, access controls, and a structured workflow, leading to confusion regarding task assignments and progress tracking.

## Objective:

- 1. Define User Roles Clearly:** Establish distinct roles for Alice (Project Manager) and Bob (Team Member) to ensure clarity in responsibilities and access rights within the project management tool.
- 2. Implement Access Control Mechanisms:** Create a system that restricts Bob's access to project creation and editing features while allowing him to view and update his assigned tasks, thereby preventing unauthorized changes.
- 3. Streamline Workflow Processes:** Develop a structured workflow for task assignment and progress tracking, ensuring that Alice can easily assign tasks to Bob and monitor their completion in a timely manner.

**Skills:** Users, Groups, Roles, Tables, Access Control List, Flow Designer

## TASK INITIATION

### Milestone 1 : Users

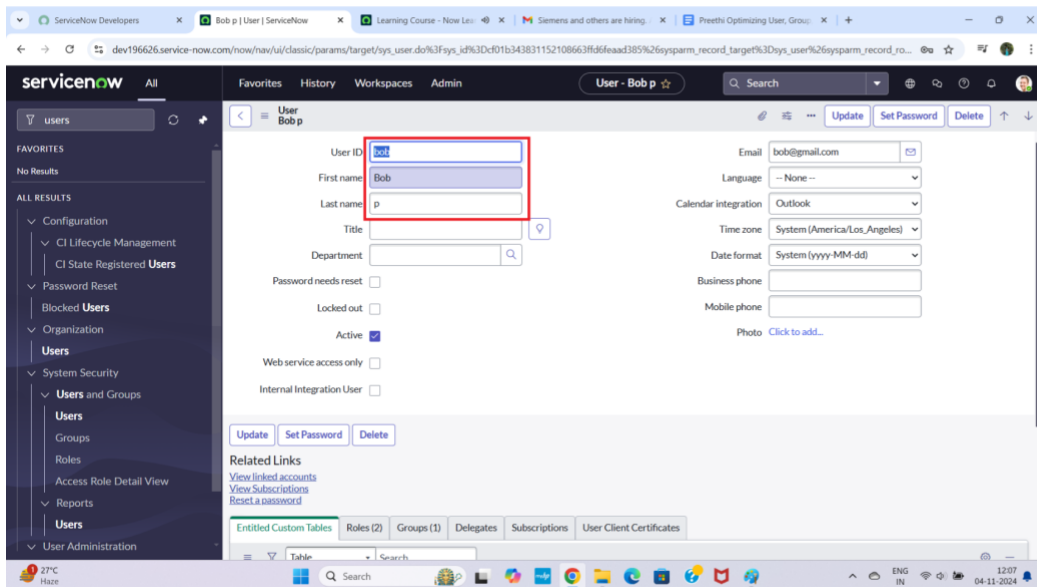
#### Activity 1: Create Users

1. Open service now
2. Click on All >> search for users
3. Select Users under system security
4. Click on new
5. Fill the following details to create a new user
6. Click on submit

The screenshot shows the ServiceNow 'User - alice p' form. The 'User ID' field is highlighted with a red box. The 'First name' field contains 'alice' and the 'Last name' field contains 'p'. The 'Email' field contains 'alice@gmail.com'. The 'Language' dropdown is set to 'None'. The 'Calendar integration' dropdown is set to 'Outlook'. The 'Time zone' dropdown is set to 'System (America/Los Angeles)'. The 'Date format' dropdown is set to 'System (yyyy-MM-dd)'. The 'Business phone' and 'Mobile phone' fields are empty. The 'Active' checkbox is checked. The 'Password needs reset' checkbox is unchecked. The 'Locked out' checkbox is unchecked. The 'Web service access only' checkbox is unchecked. The 'Internal Integration User' checkbox is unchecked. The 'Update', 'Set Password', and 'Delete' buttons are visible at the bottom of the form. The left sidebar shows the navigation menu with 'Users' selected under 'System Security'.

#### Create one more user:

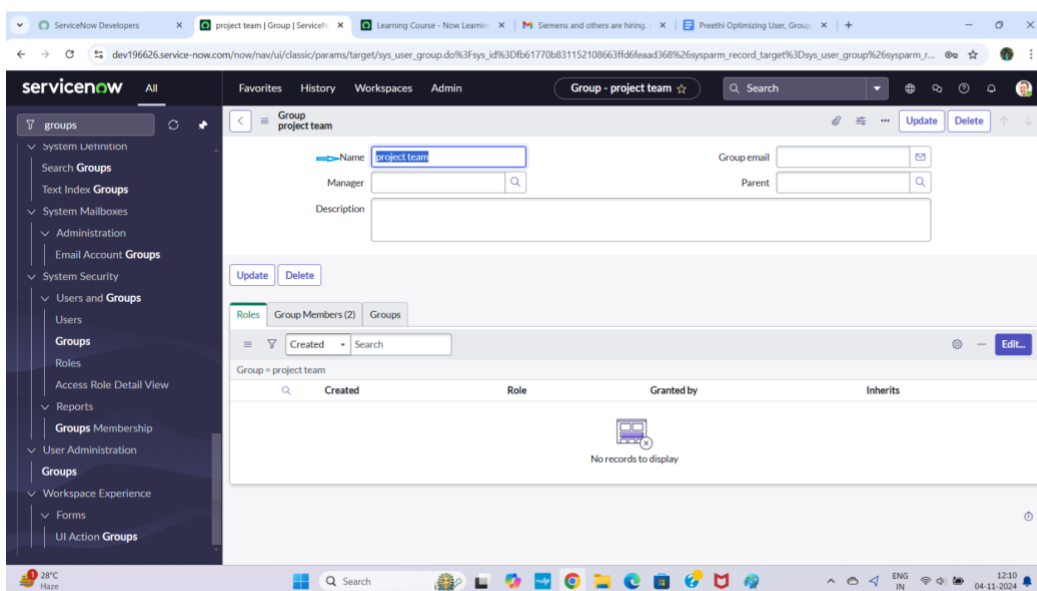
7. Create another user with the following details
8. Click on submit



## Milestone 2 : Groups

### Activity 1: Create Groups

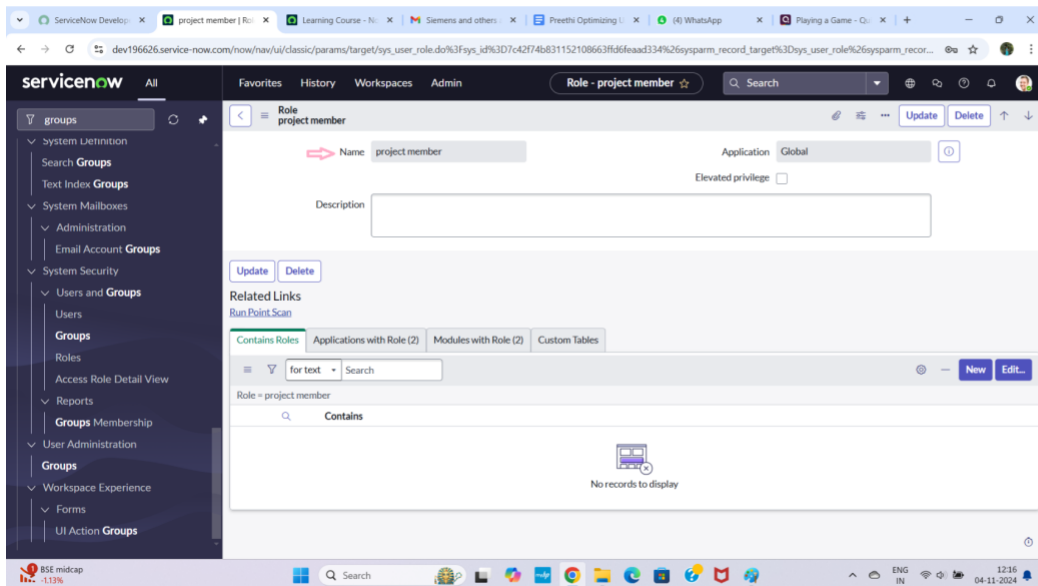
1. Open service now.
2. Click on All >> search for groups
3. Select groups under system security
4. Click on new
5. Fill the following details to create a new group
6. Click on submit



## Milestone 3 : Roles

### Activity 1: Create roles

1. Open service now.
2. Click on All >> search for roles
3. Select roles under system security
4. Click on new
5. Fill the following details to create a new role
6. Click on submit



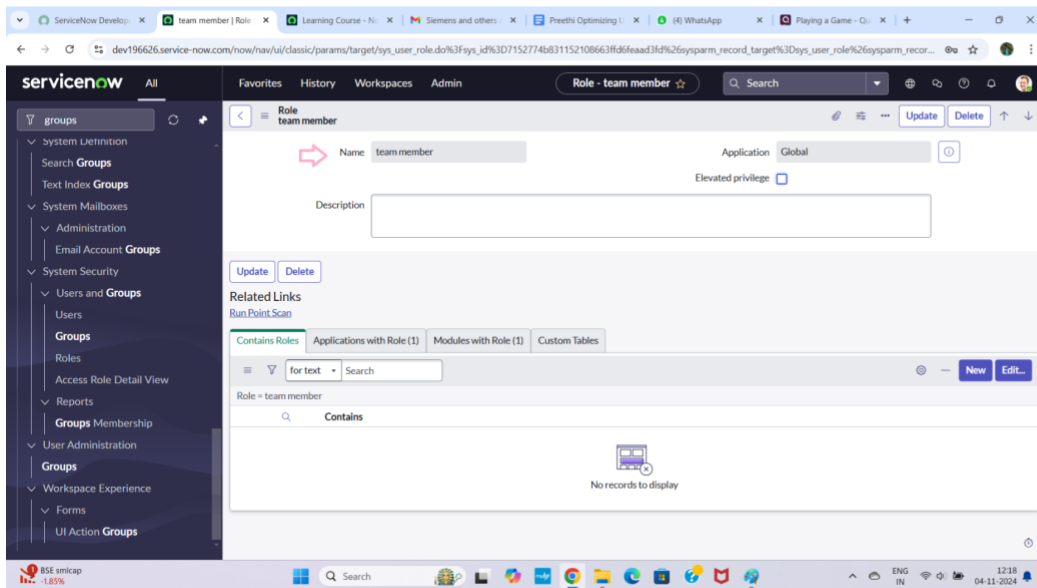
### Create one more role:

7. Create another role with the following details
8. Click on submit

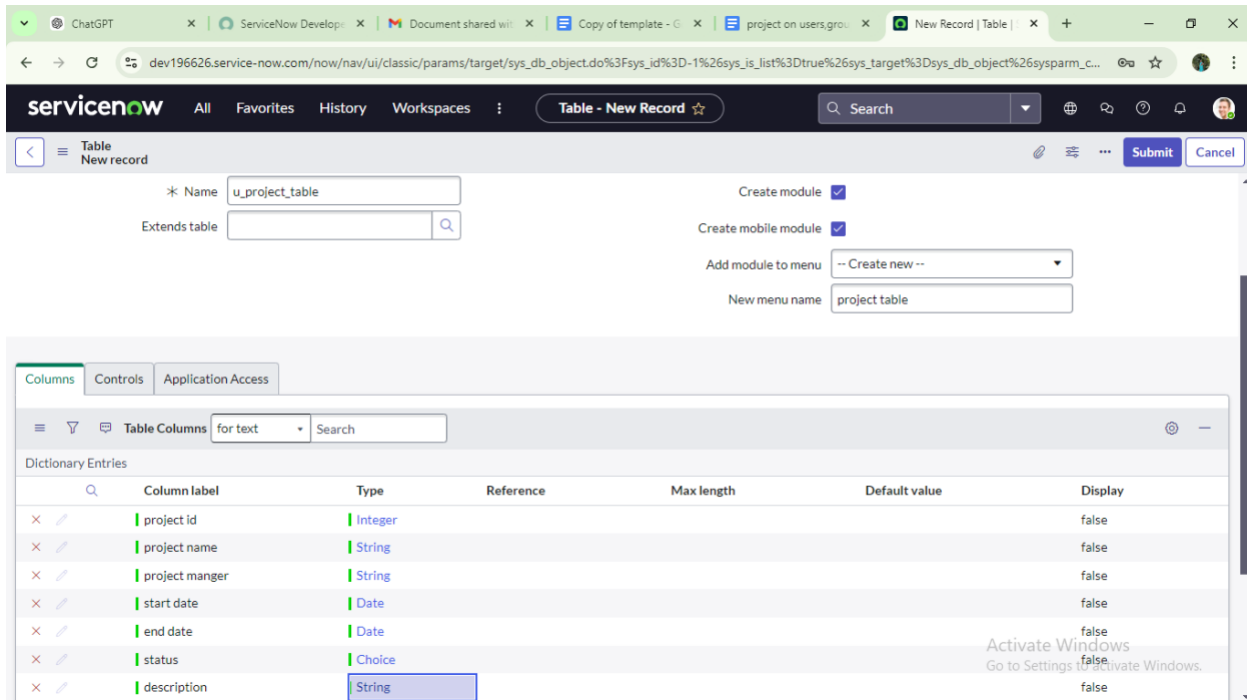
## Milestone 4 : Table

### Activity 1: Create Table

1. Open service now.
2. Click on All >> search for tables
3. Select tables under system definition
4. Click on new
5. Fill the following details to create a new table  
Label : project table  
Check the boxes Create module & Create mobile module
6. Under new menu name : project table
7. Under table columns give the columns



8. Click on submit



Create one more table:

9. Create another table as: task table 2 and fill with following details.

10. Click on submit.

Table - task table 2

Dictionary Entries

Column label	Type	Reference	Max length	Default value	Display
Updated by	String	(empty)	40		false
Updates	Integer	(empty)	40		false
Updated	Date/Time	(empty)	40		false
Sys ID	Sys ID (GUID)	(empty)	32		false
Created by	String	(empty)	40		false
Created	Date/Time	(empty)	40		false
task id	Integer				false
task name	String				false
assigned to	String				false
due date	Date				false
status	Choice				false
comments	String				false

Insert a new row...

## Milestone 5 : Assign users to groups

### Activity 1: Assign users to project team group

1. Open service now.
2. Click on All >> search for groups
3. Select tables under system definition
4. Select the project team group
5. Under group members
6. Click on edit
7. Select alice p and bob p and save

Group - project team

Name: project team

Manager: [Search]

Group email: [Search]

Description: [Text Area]

Update Delete

Roles: Group Members (2) Groups

User Search

Group = project team

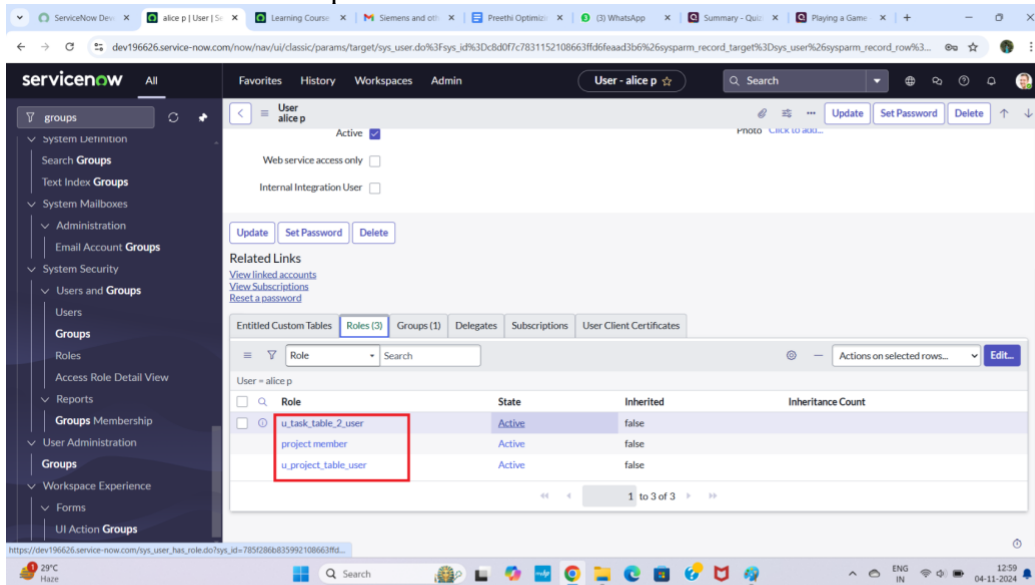
User
<input type="checkbox"/> Bob p
<input type="checkbox"/> alice p

1 to 2 of 2

## Milestone 6 : Assign roles to users

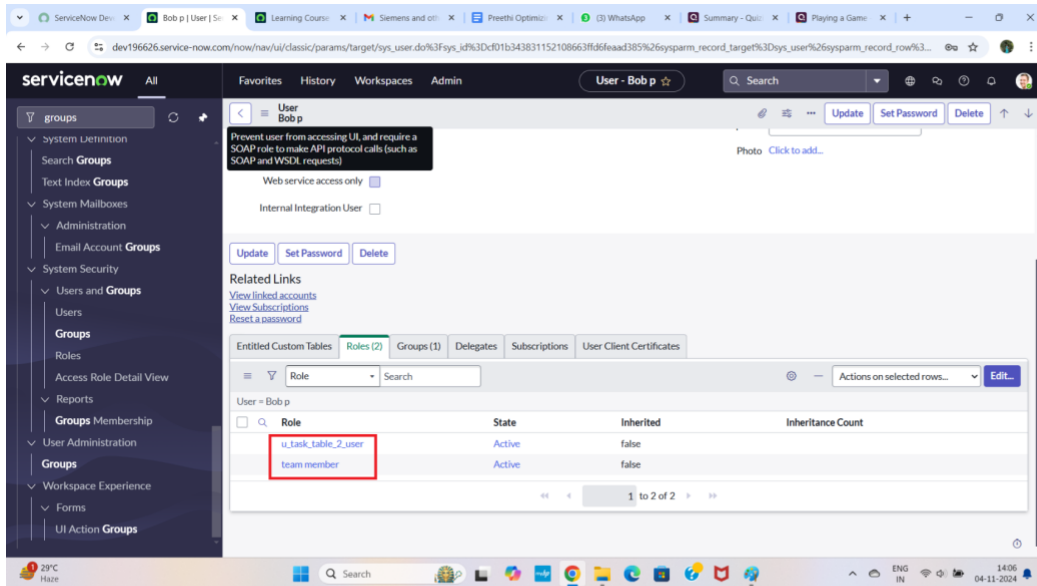
### Activity 1: Assign roles to alice user

- 1.Open servicenow.Click on All >> search for user
- 2.Select tables under system definition
- 3.Select the project manager user
- 4.Under project manager
- 5.Click on edit
- 6.Select project member and save
- 7.click on edit add u\_project\_table role and u\_task\_table role
- 8.click on save and update the form.



### Activity 2: Assign roles to bob user

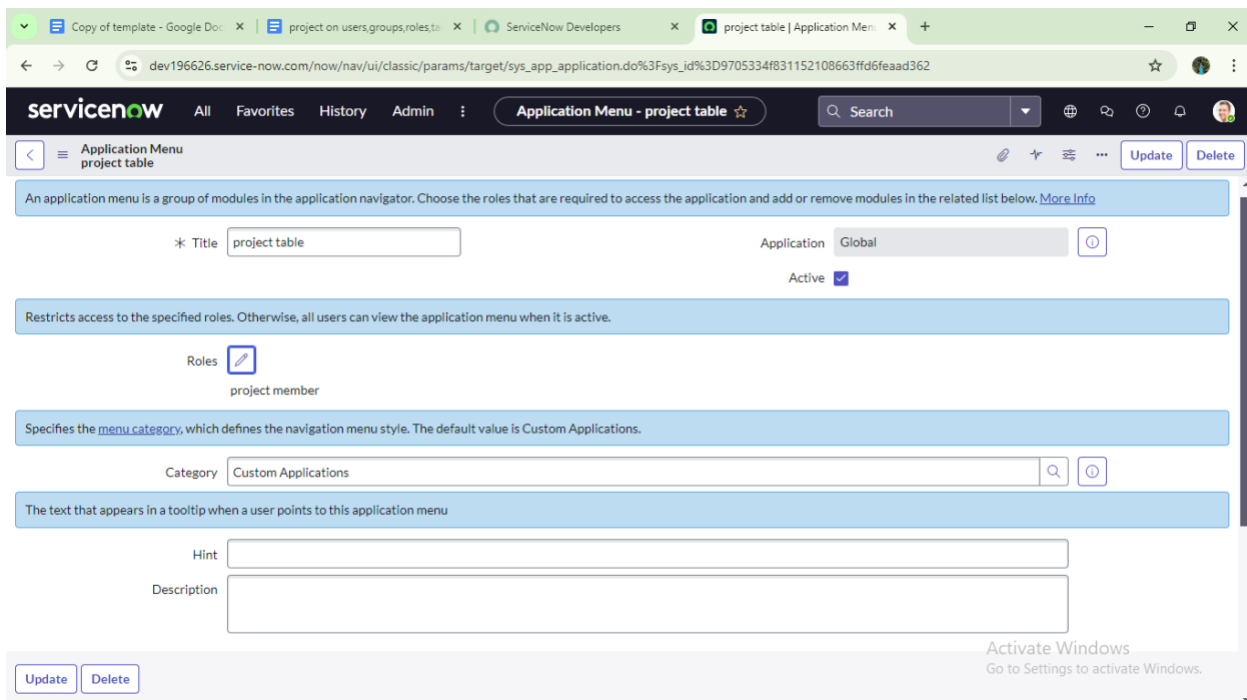
1. Open servicenow.Click on All >> search for user
- 2.Select tables under system definition
- 3.Select the bob p user
- 4.Under team member
- 5.Click on edit
- 6.Select team member and give table role and save
7. Click on profile icon Impersonate user to bob
8. We can see the task table2.



## Milestone 7 : Application access

### Activity 1: Assign table access to application

1. while creating a table it automatically create a application and module for that table
2. Go to application navigator search for search project table application
3. Click on edit module
4. Give project member roles to that application
5. Search for task table2 and click on edit application.
6. Give the project member and team member role for task table 2 application





The screenshot shows the ServiceNow configuration page for 'Application Menu - task table 2'. The page includes a header with the ServiceNow logo and navigation tabs (All, Favorites, History, Admin). Below the header, there's a search bar and a list of tabs. The main content area contains several sections:

- Roles:** A section with a text box containing 'u\_task\_table\_2\_user, project member, team member' and a 'Roles' icon.
- Category:** A section with a text box containing 'Custom Applications' and a 'Category' icon.
- Hint:** A text box for entering a hint.
- Description:** A text box for entering a description.
- Active:** A checkbox labeled 'Active' which is checked.
- Buttons:** 'Update' and 'Delete' buttons are located at the bottom right of the main content area.

At the bottom of the page, there's a footer with 'Activate Windows' and 'Go to Settings to activate Windows' text, and a 'New' button.

## Milestone 8 :Access control list

### Activity 1: Create ACL

1. Open service now.
2. Click on All >> search for ACL
3. Select Access Control(ACL) under system security
4. Click on elevate role
5. Click on new

Warning: A role, security attribute, data condition, or script is required to properly secure access with this ACL.

\* Type: record Application: Global

\* Operation: write Active: ☒

Decision Type: Allow If Advanced: ☐

Admin overrides: ☒

Protection policy: -- None --

\* Name: task table 2 [u\_task\_table\_2] status

Description:

Applies To: No. of records matching the condition: 1

Add Filter Condition Add "OR" Clause

-- choose field -- -- oper -- -- value --

Conditions

Access Control Rules have two decision types, and these types will behave differently depending on conditions.

6. Fill the following details to create a new ACL
7. Scroll down under requires role
8. Double click on insert a new row
9. Give task table and team member role
10. Click on submit
11. Similarly create 4 acl for the following fields

Access Controls

Name	Decision Type	Operation	Type	Active	Updated by	Updated
u_leave_request	Allow If	delete	record	true	admin	2024-10-22 02:27:59
u_leave_request	Allow If	create	record	true	admin	2024-10-22 02:27:59
u_task_table	Allow If	read	record	true	admin	2024-10-22 04:21:28
u_task_table	Allow If	write	record	true	admin	2024-10-22 04:20:15
u_task_table.u_assigned_to	Allow If	write	record	true	admin	2024-10-22 04:33:53
u_task_table.u_due_date	Allow If	write	record	true	admin	2024-10-22 04:33:14
u_task_table.u_task_id	Allow If	write	record	true	admin	2024-10-22 04:27:47
u_task_table.u_task_name	Allow If	write	record	true	admin	2024-10-22 04:31:14
u_task_table_2	Allow If	write	record	true	admin	2024-10-22 21:05:07
u_task_table_2	Allow If	read	record	true	admin	2024-10-22 21:26:57
u_task_table_2	Allow If	read	record	true	admin	2024-10-22 21:05:07
u_task_table_2	Allow If	write	record	true	admin	2024-10-22 21:28:27
u_task_table_2	Allow If	create	record	true	admin	2024-10-22 21:05:06
u_task_table_2	Allow If	delete	record	true	admin	2024-10-22 21:05:07
u_task_table_2.u_assigned_to	Allow If	write	record	true	admin	2024-10-22 21:31:20

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12. Click on profile on top right side
13. Click on impersonate user
14. Select bob user
15. Go to all and select task table2 in the application menu bar
16. Comment and status fields have the edit access

task id

task name

status

assigned to

comments

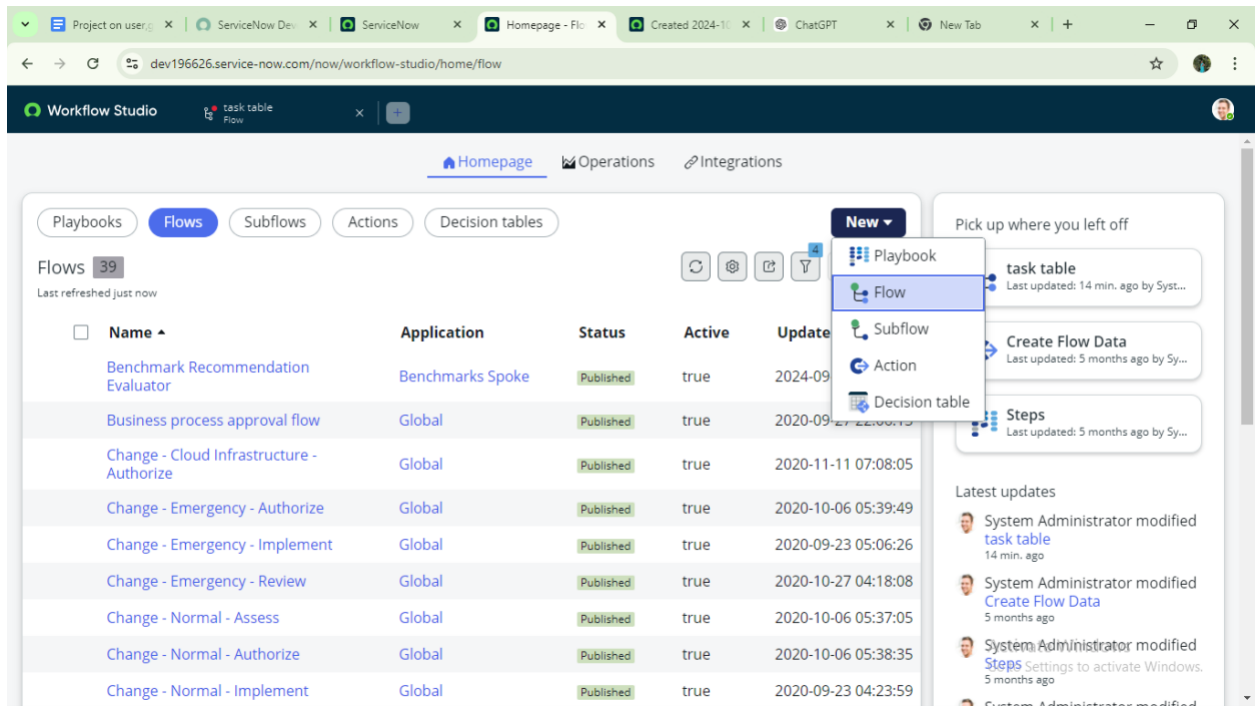
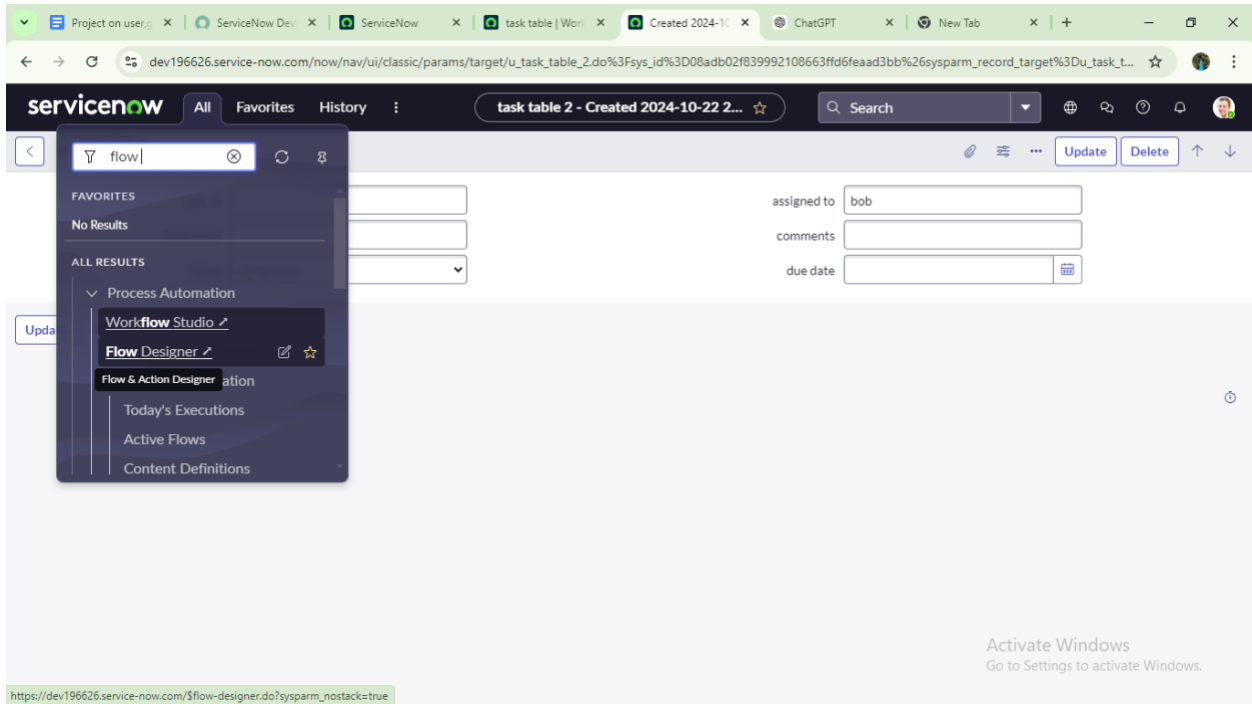
due date

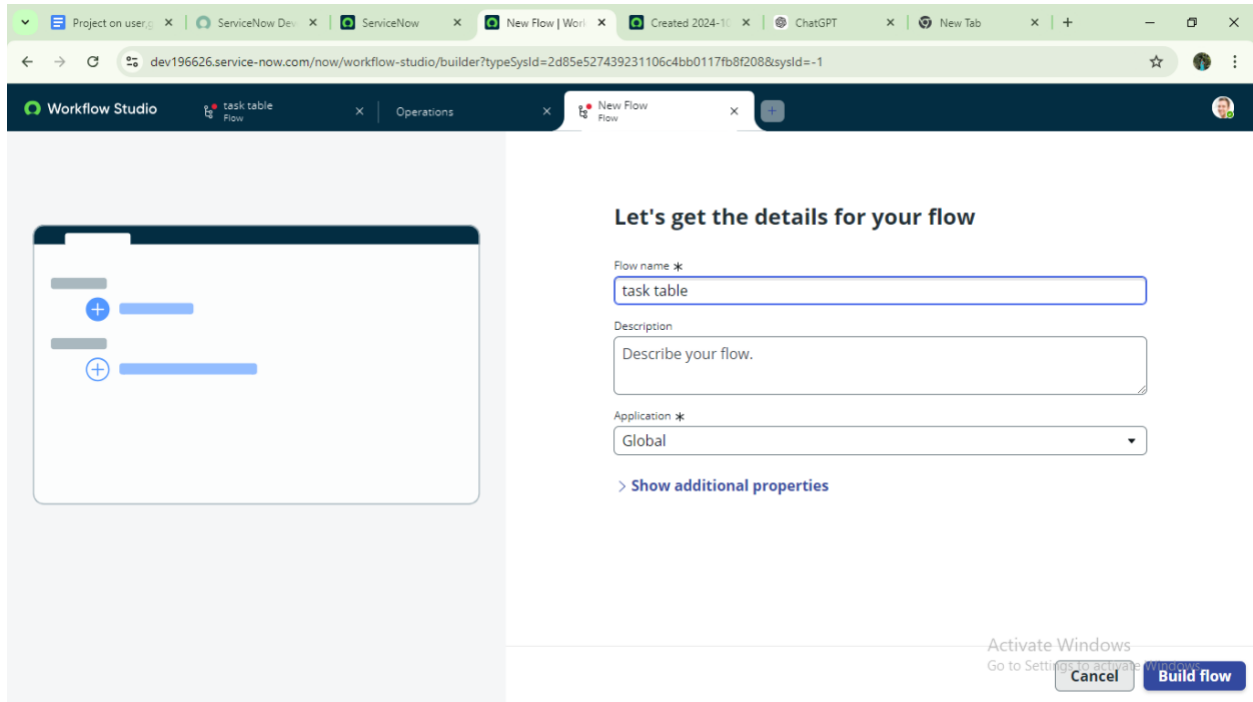
Submit

## Milestone 9: Flow

### Activity 1: Create a Flow to Assign operations ticket to group

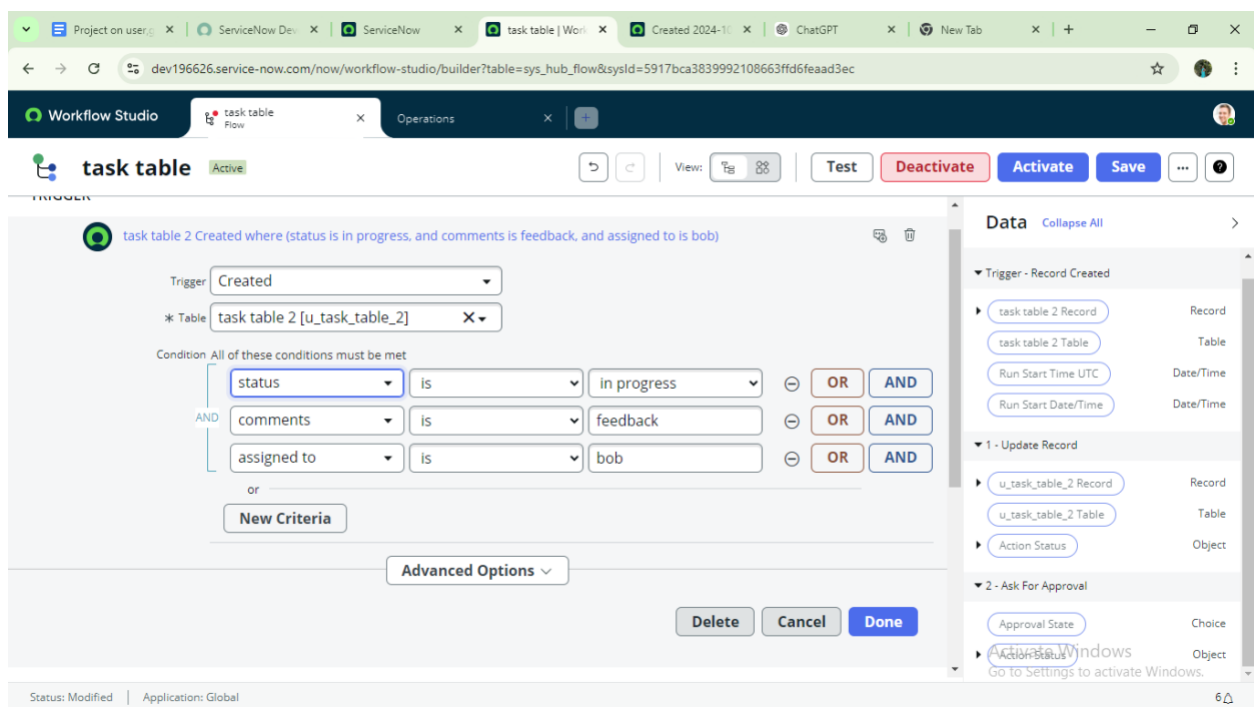
1. Open service now.
2. Click on All >> search for Flow Designer
3. Click on Flow Designer under Process Automation.
4. After opening Flow Designer Click on new and select Flow.
5. Under Flow properties Give Flow Name as “ task table”.
6. Application should be Global.
7. Click build flow.





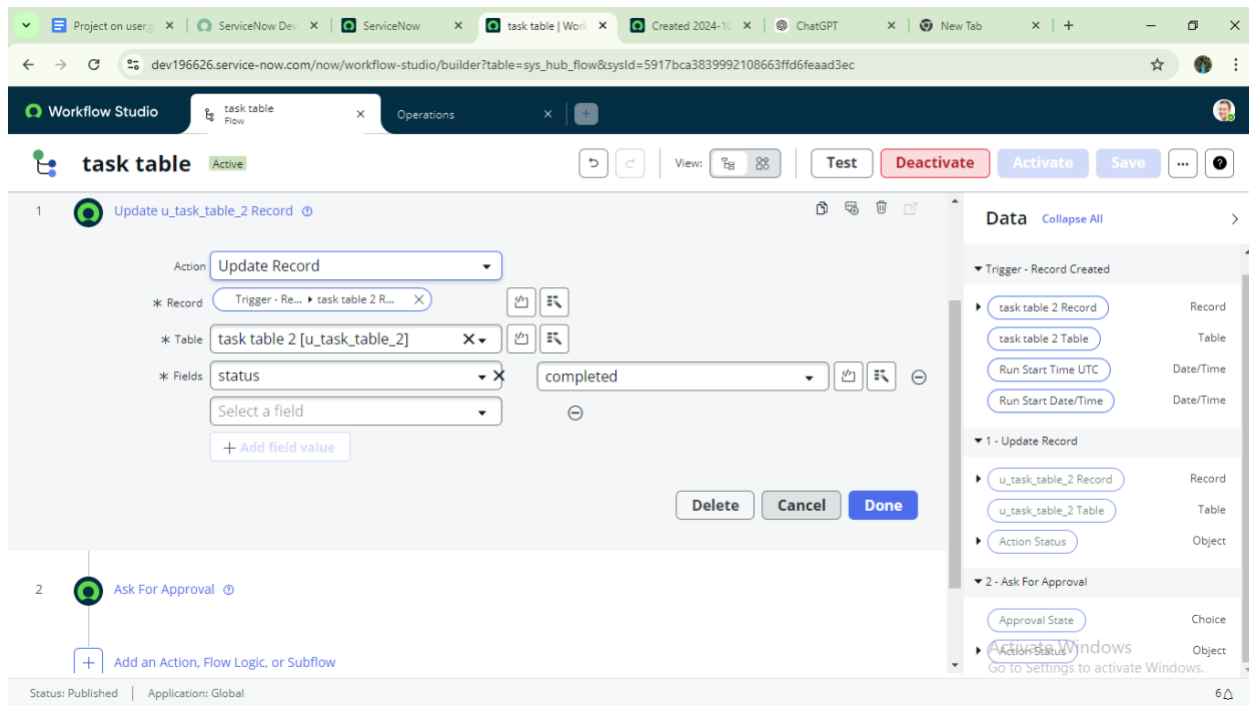
### next step:

1. Click on Add a trigger
2. Select the trigger in that Search for “create record” and select that.
3. Give the table name as “ task table ”.
4. Give the Condition as Field : status Operator :is Value : in progress  
Field : comments Operator :is Value : feedback  
Field : assigned to Operator :is Value : bob
5. After that click on Done.



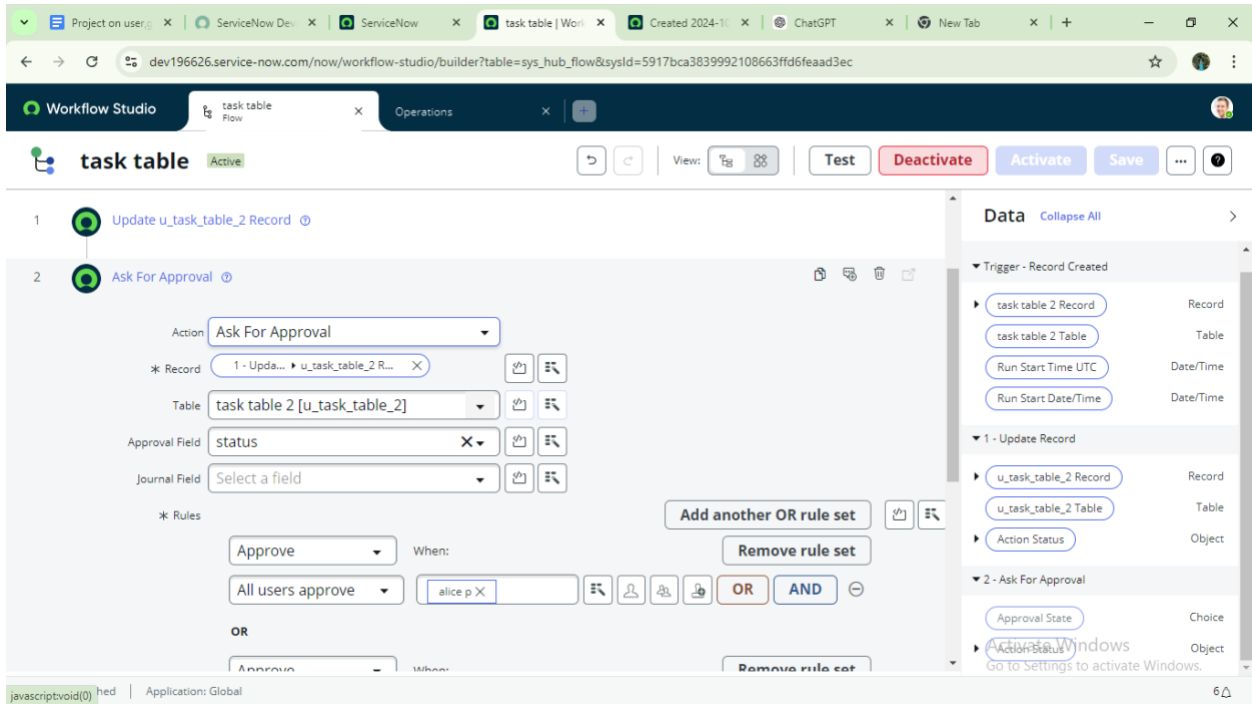
### Next step:

1. Click on Add an action.
2. Select action in that ,search for “ update records”.
3. In Record field drag the fields from the data navigation from Right Side(Data pill)
4. Table will be auto assigned after that
5. Add fields as “status” and value as “completed”
6. Click on Done.

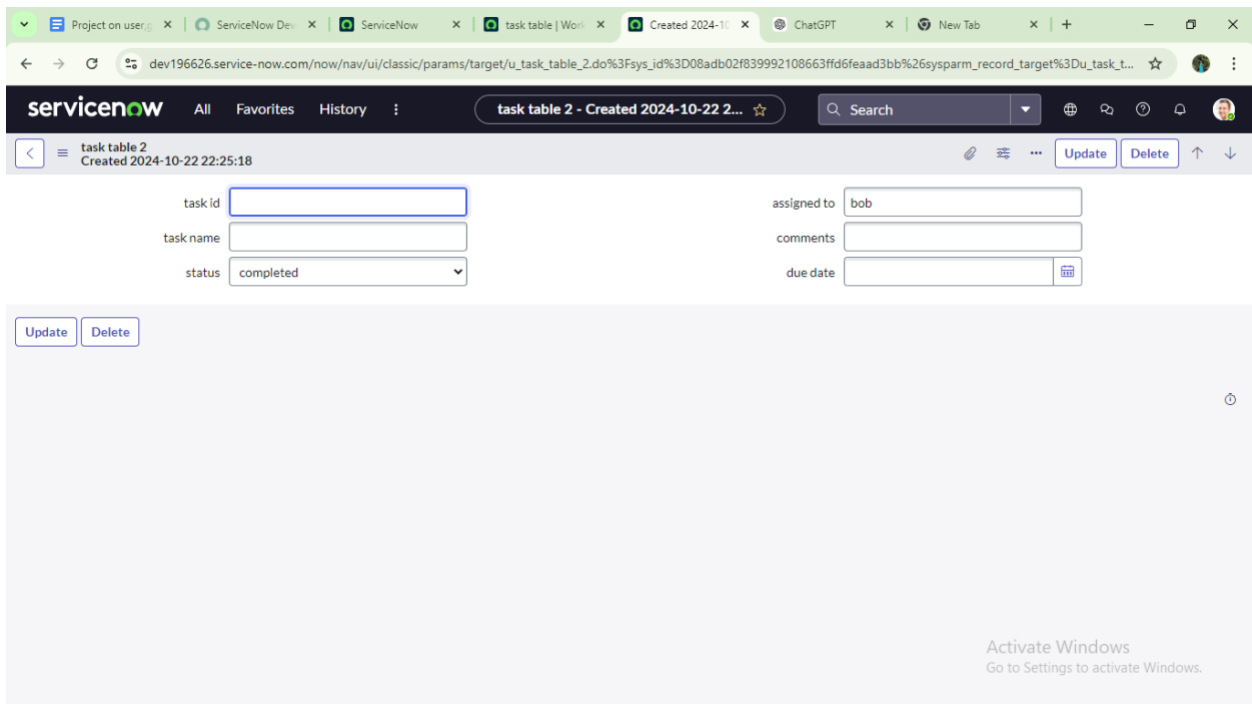


### Next step:

1. Now under Actions.
2. Click on Add an action.
3. Select action in that ,search for “ ask for approval ”.
4. In Record field drag the fields from the data navigation from Right side
5. Table will be auto assigned after that
6. Give the approve field as “ status”
7. Give approver as alice p
8. Click on Done.



- 9.Go to application navigator search for task table.
- 10.It status field is updated to completed



- 11.Go to application navigator and search for my approval
- 12.Click on my approval under the service desk.
13. Alice p got approval request then right click on requested then select approved

servicenow					
All Favorites History Workspaces Approvals Search Actions on selected rows...					
All					
	State	Approver	Comments	Approval for	Created
<input type="checkbox"/>	<input type="text" value="Search"/>	<input type="text" value="Search"/>	<input type="text" value="Search"/>	<input type="text" value="Search"/>	<input type="text" value="Search"/>
<input type="checkbox"/>	Approved	alice p		(empty)	2024-10-22 22:26:19
<input type="checkbox"/>	Rejected	Fred Luddy		(empty)	2024-09-01 12:19:33
<input type="checkbox"/>	Requested	Fred Luddy		(empty)	2024-09-01 12:17:03
<input type="checkbox"/>	Requested	Fred Luddy		(empty)	2024-09-01 12:15:44
<input type="checkbox"/>	Requested	Howard Johnson		CHG0000096	2024-09-01 06:15:29
<input type="checkbox"/>	Requested	Ron Kettering		CHG0000096	2024-09-01 06:15:29
<input type="checkbox"/>	Requested	Luke Wilson		CHG0000096	2024-09-01 06:15:29
<input type="checkbox"/>	Requested	Christen Mitchell		CHG0000096	2024-09-01 06:15:29
<input type="checkbox"/>	Requested	Bernard Laboy		CHG0000096	2024-09-01 06:15:29
<input type="checkbox"/>	Requested	Howard Johnson		CHG0000095	2024-09-01 06:15:25
<input type="checkbox"/>	Requested	Ron Kettering		CHG0000095	2024-09-01 06:15:25
<input type="checkbox"/>	Requested	Luke Wilson		CHG0000095	2024-09-01 06:15:25
<input type="checkbox"/>	Requested	Christen Mitchell		CHG0000095	2024-09-01 06:15:25
<input type="checkbox"/>	Requested	Bernard Laboy		CHG0000095	2024-09-01 06:15:25

## Conclusion :

This scenario highlights a structured approach to project management, showcasing the roles of Alice and Bob within a defined workflow. With Alice's oversight and Bob's execution, the team effectively collaborates to ensure project success. The use of tables organizes key information, facilitating easy tracking of projects, tasks, and progress updates. Overall, this system promotes accountability, enhances communication, and leads to the successful completion of projects.